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EXAMINER				
MATTIS, JASON E				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/518,409

Applicant(s)

MAKAYAMA ET AL.

Examiner

JASON E. MATTIS

Art Unit

2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 6-13 is/are rejected.
- 7) ☒ Claim(s) 3 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the Request for Continued Examination filed 2/27/09. Claims 1-13 are currently pending in the application.

Claim Objections

2. Claims 10 and 11 objected to because of the following informalities:

Regarding claim 10, line 5 of this claim appears to contain a typo using the word "performs" instead of "perform". It is recommended that "performs" be changed to "perform" to fix the typo.

Claim 11 is objected to since it depends on claim 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7 and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, lines 3 and 4 of this claim contain the phrases "the packet signals" and "the packet signals flow". Although there is prior mention of "signals" in claim 1, which claim 7 depends on, there is no specific prior mention any "packet signals" or any "packet signal flow". Thus there is improper antecedent basis for these terms in claim 7. It is recommended that claim 7 be amended such that there is proper antecedent basis for each term used in the claim.

Regarding claim 9, line 7 of this claim contains the term "the service type". Since there is no prior mention of any "service type" in the claim language, there is improper antecedent basis for this term. It is recommended that claim 9 be amended such that there is proper antecedent basis for each term used in the claim.

Claims 10 and 11 are rejected since they depend on claim 9.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 8, 9, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurita et al. (WO00/41364 as cited by the Applicant's IDS filed 1/25/05 *note column and line numbers referenced below correspond to U.S. Pat.

6898640 B1, which is an English translation of WO00/41364) in view of Ala-Luukko et al. (U.S. Pat. 6934285 B1).

With respect to claim 1, Kurita et al. discloses a gateway device connected to a mobile communication network, an external network, and a service control device executing service control based on signals received from a communication terminal or a predetermined communication device so as to transmit and receive signals to and from the service control device **(See column 5 lines 48-58, column 10 lines 4-48, and Figures 1 and 4 of Kurita et al. for reference to gateway 5 connected to a mobile communication network 10, internet 6, which is an external communication network, and service control point 9 executing service control based on packets received from mobile station 1, which is a communication terminal to transmit and receive signals from the service control point 9)**. Kurita et al. also disclose a receiver receiving control information generated by a service management device connected to the service control device required for providing service from the service control device **(See column 10 lines 4-48 and Figure 4 of Kurita et al. for reference to the gateway 5 receiving control information from the service control point 9, which includes a service management device to generate and transmit the control information)**. Kurita et al. further discloses an information processor performing a predetermined information process on the control information for received signals **(See column 10 lines 4-48 and Figures 4 and 5 of Kurita et al. for reference to the gateway 9 processing and transferring data received from the mobile station 1 and the internet 6 based on the received control information)**. Kurita et al. does not

specifically disclose control information including rules or policies defined for each of a plurality of services with each rule or policy specifying processing for a signal.

With respect to claim 12, Kurita et al. discloses a gateway device connected to a mobile communication network, an external network, and a service control device executing service control based on signals received from a communication terminal or a predetermined communication device so as to transmit and receive signals to and from the service control device **(See column 5 lines 48-58, column 10 lines 4-48, and Figures 1 and 4 of Kurita et al. for reference to gateway 5 connected to a mobile communication network 10, internet 6, which is an external communication network, and service control point 9 executing service control based on packets received from mobile station 1, which is a communication terminal to transmit and receive signals from the service control point 9)**. Kurita et al. also disclose a receiver receiving control information from the service control device and generated by a service management device connected to the service control device **(See column 10 lines 4-48 and Figure 4 of Kurita et al. for reference to the gateway 5 receiving control information from the service control point 9, which includes a service management device to generate and transmit the control information)**. Kurita et al. further discloses determining a service type and destination requested by a service request signal by rules for service request signals received from the networks **(See column 10 lines 4-48 and Figures 4 and 5 of Kurita et al. for reference to gateway 5 receiving rules and controlling communications to route packets to destinations in both the mobile network 10 and external networks based on the**

rules). Kurita et al. further discloses performing protocol conversion in accordance with a service type **(See column 6 line 66 to column 7 line 25 of Kurita et al. for reference to performing protocol translation based on a simplified protocol TL service type between packets received from and sent to devices of the wireless network and packet received from and sent to external devices on external networks).** Kurita et al. does not specifically disclose a plurality of service types with rules or policies relating to the service types and specifying processing of a service request signal.

With respect to claims 1 and 12, Ala-Luukko et al., in the field of communications, discloses a gateway receiving control information including rules or policies defined for each of a plurality of services with each rule or policy specifying processing for a signal **(See column 1 lines 19-32, column 4 line 55 to column 5 line 25, and Figure 1 of Ala-Luukko et al. for reference to a gateway receiving a list from a service control point indicating a type of service, of a plurality of possible services, and specifying how messages corresponding to each type of service are to be processed and converted when being sent by the gateway to an external network).** A gateway receiving control information including rules or policies defined for each of a plurality of services with each rule or policy specifying processing for a signal has the advantage of allowing a gateway to translate messages of multiple different service types from a format compatible with a service control device to a format compatible with an external network **(See the abstract of Ala-Luukko et al. for reference to this advantage).**

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Ala-Luukko et al., to combine a gateway receiving control information including rules or policies defined for each of a plurality of services with each rule or policy specifying processing for a signal, as suggested by Ala-Luukko et al., with the system and method of Kurita et al., with the motivation being to allow a gateway to translate messages of multiple different service types from a format compatible with a service control device to a format compatible with an external network.

With respect to claim 2, Kurita et al. discloses a gateway rule retainer retaining a gateway rule given through the service control device and a gateway rule executor executing a process by applying the rule **(See column 10 lines 4-48 and Figures 4 and 5 of Kurita for reference to receiving rules from the service control point 9 and executing the rules to control further communications between the mobile station 1 and the internet 6).**

With respect to claim 4, Kurita et al. discloses retaining connection path selection rules and applying the connection path selection rules to determine a destination of a received signal **(See column 10 lines 4-48 and Figures 4 and 5 of Kurita for reference to retaining and applying connection path selection rules such that packets are routed by the gateway 5 to and from determined destinations including the mobile station 1 and devices of the internet 6).**

With respect to claim 8, Kurita et al. discloses performing protocol conversion on packets received from the communication terminal into signals usable by devices on

the external network and vice versa (**See column 6 line 66 to column 7 line 25 of Kurita et al. for reference to performing protocol translation between packets received from and sent to devices of the wireless network and packet received from and sent to external devices on external networks**).

With respect to claim 9, Although Kurita et al. does disclose storing and executing protocol conversion rules (**See column 6 line 66 to column 7 line 25 of Kurita et al. for reference to performing protocol translation based on a simplified protocol TL service type between packets received from and sent to devices of the wireless network and packet received from and sent to external devices on external networks**), Kurita et al. does not specifically disclose a gateway converting a signal into a signal corresponding to a service type executed in the service control device before being exchanged between networks.

With respect to claim 9, Ala-Luukko et al., in the field of communications, discloses a gateway converting a signal into a signal corresponding to a service type executed in the service control device before being exchanged between networks (**See column 4 line 55 to column 5 line 13 and Figure 1 of Ala-Luukko et al. for reference to a gateway performing protocol conversion on signals to and from a service control point based on a message type indicator extracted from a received signal**). A gateway converting a signal into a signal corresponding to a service type executed in the service control device before being exchanged between networks has the advantage of allowing devices to transmit and receive data to and

from the service control device transparently using their native protocol such that processing is reduced in both the devices and the service control device.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Ala-Luukko et al., to combine a gateway converting a signal into a signal corresponding to a service type executed in the service control device before being exchanged between networks, as suggested by Ala-Luukko et al., with the system and method of Kurita et al., with the motivation being to allow devices to transmit and receive data to and from the service control device transparently using their native protocol such that processing is reduced in both the devices and the service control device.

With respect to claim 13, Kurita et al. discloses gateway rules comprising packet allocation information and information allocation information as well as executing the rules for packet allocation and information allocation (**See column 10 lines 4-48 and Figures 4 and 5 of Kurita for reference to retaining and applying connection path selection rules, which are packet allocation and information allocation rules, such that packets are routed by the gateway 5 to and from determined destinations including the mobile station 1 and devices of the internet 6**). Although Kurita et al. does disclose storing and executing protocol conversion rules (**See column 6 line 66 to column 7 line 25 of Kurita et al. for reference to performing protocol translation based on a simplified protocol TL service type between packets received from and sent to devices of the wireless network and packet received from and sent to external devices on external networks**), Kurita et

al. does not specifically disclose executing received protocol conversion and information service type extraction rules for packets transferred among the service control device.

With respect to claim 13, Ala-Luukko et al., in the field of communications, discloses a gateway executing received protocol conversion and information service type extraction rules for packets transferred among a service control device **(See column 4 line 55 to column 5 line 13 and Figure 1 of Ala-Luukko et al. for reference to a gateway performing protocol conversion on signals to and from a service control point based on a message type indicator extracted from a received signal)**. Executing received protocol conversion and information extraction rules for packets transferred among a service control device has the advantage of allowing devices to transmit and receive data to and from the service control device transparently using their native protocol such that processing is reduced in both the devices and the service control device.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Ala-Luukko et al., to combine executing received protocol conversion and information extraction rules for packets transferred among a service control device, as suggested by Ala-Luukko et al., with the system and method of Kurita et al., with the motivation being to allow devices to transmit and receive data to and from the service control device transparently using their native protocol such that processing is reduced in both the devices and the service control device.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurita in view of Ala-Luukko et al. and in further view of Maufer et al. (U.S. Pat. 7120930 B2).

With respect to claim 6, the combination of Kurita et al. and Ala-Luukko et al. does not disclose retaining and applying a screening policy to packets to judge the correctness of the signals and to discard an inappropriate packet signal.

With respect to claim 6, Maufer et al., in the field of communications, discloses retaining and applying a screening policy to packets to judge the correctness of the signals and to discard an inappropriate packet signal **(See column 18 line 58 to column 19 line 9 and column 20 lines 14-40 of Maufer et al. for reference to screening packets for correctness and discarding invalid packets)**. Retaining and applying a screening policy to packets to judge the correctness of the signals and to discard an inappropriate packet signal had the advantage of allowing invalid and fake packets to be discarded such that no further processing is wasted on these packets.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Maufer et al., to combine retaining and applying a screening policy to packets to judge the correctness of the signals and to discard an inappropriate packet signal, as suggested by Maufer et al., with the system and method of Kurita et al. and Ala-Luukko et al., with the motivation being to allow invalid and fake packets to be discarded such that no further processing is wasted on these packets.

Allowable Subject Matter

8. Claims 3 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 7, 10, and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 2/27/09 have been fully considered but they are not persuasive.

First, it is noted that the Applicant has requested that the IDSs filed June 9, 2008 and June 30, 2008 be considered in this Office Action; however both these IDSs have already been considered as indicated in the Advisory Action mailed 1/13/09.

Regarding Applicant's argument that Kurita et al. does not disclose control information generated by a service management device connected to the service control point, as claimed, the Examiner respectfully disagrees. Kurita et al. discloses a gateway receiving control information from the service control point (See column 10 lines 4-48 and Figure 4 of Kurita et al.). Thus, the service control point of Kurita et al.

inherently must include and be connected a device equivalent to the claimed service management device, which generates and sends the control information performing the same function as claimed service management device. Further, it has been held that lacking any criticality, to make prior art parts separable (i.e. separating the service control point of Kurita et al. in to a service control point and a service management device) does not make the claimed invention patentable over that prior art (Nerwin v. Erlichman, 168 USPQ 177).

Regarding Applicant's argument that Ala-Luukko et al. does not disclose a gateway receiving control information including rules or policies from a service control device, the Examiner respectfully disagrees. Ala-Luukko et al. discloses a service control point, SCP, sending an indicator, such as a number, to indicate a list in a gateway, GW, to define a type of message (See column 5 lines 5-8 of Ala-Luukko et al.). The indicator corresponds to the claimed control information including rules or policies because the indicator is received by the GW from the SCP and controls the gateway to process information of a corresponding message type as indicated by the indicator. Thus, the indicator comprises a rule used by the gateway to determine a message type, and to determine how to process information of the message type. Further, the multiple different message types of Ala-Luukko et al. correspond to the different services types, as claimed. Therefore, Ala-Luukko et al. does disclose a gateway receiving control information including rules or policies from a service control device, as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON E. MATTIS whose telephone number is (571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason E Mattis
Examiner
Art Unit 2416

JEM

/Jason E Mattis/
Examiner, Art Unit 2416